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(54) DIGITAL DATA ARITHMETIC CIRCUIT

(57) Abstract:

PURPOSE: To accelerate the arithmetic speed by dividing a memory part into plural groups to write the data read out by a command to the memory part of a group and the data on the arithmetic result to the memory part of the other group respectively.

CONSTITUTION: The data read out by a command is written to a memory part of one of plural divided groups of memories along with the data on arithmetic result written to a memory of the other group respectively. Thus the data is read and written at a time. For instance, the data D2 is read out of a designated address of a memory element 2 and held at an input holding part 5 together with the input data D4 to be calculated. Then data D5 and D7 are supplied to an arithmetic device 4 to perform an operation. The data D3 calculated by the device 4 is held at an output holding part 6, and at the same time the device 4 is replaced for the next calculation. Then the data D6 on the arithmetic result held at the part 6 is stored in a memory element 7. Meanwhile the replaced data is supp the device 4 to give an operation to the next re data.